

Claims

[c1] A method of treating a subterranean hydrocarbons reservoir comprising contacting the formation with a treating fluid comprising an aqueous solution, an acid and a surfactant acting as gelling agent essentially consisting of erucylamidopropyl betaine (or a protonated/deprotonated homolog or salt thereof).

[c2] The method of claim 1, wherein said acid is selected from the group consisting of hydrochloric acid, a mixture of hydrofluoric acid and hydrochloric acid, acetic acid and formic acid.

[c3] The method of claim 2, wherein said acid is present in said fluid at a concentration of at least 15% by weight.

[c4] A method of treating a subterranean hydrocarbons reservoir comprising contacting the formation with a treating fluid comprising an aqueous solution, an acid, an alcohol and a surfactant acting as gelling agent essentially consisting of erucylamidopropyl betaine (or a protonated/deprotonated homolog or salt thereof).

[c5] The method of claim 4, wherein said alcohol is selected among the group consisting of methanol, ethanol and isopropanol.

[c6] The method of claim 5, wherein said n-alcohol is methanol.

[c7] The method of claim 6, wherein the methanol is present in said fluid at a concentration of between 0.1 and 10% by volume.

[c8] The method of claim 7, wherein the methanol is present in said fluid at a concentration of between 1% and 8% by volume.

[c9] The method of claim 4, wherein said acid is selected from the group consisting of hydrochloric acid, a mixture of hydrofluoric acid and hydrochloric acid, acetic acid and formic acid.

[c10] The method of claim 8, wherein said acid is present in said fluid at a concentration of between 3 and 28% by weight.

- [c11] The method of claim 8, wherein the treating fluid further comprises at least one additive selected among corrosion inhibitors, non-emulsifiers, iron reducing agents and chelating agents.
- [c12] The method of claim 4, wherein the erucylamidopropyl betaine is present in said fluid at a concentration of between about 1 and about 4% by weight.
- [c13] The method of claim 11 wherein the erucylamidopropyl betaine is present in said fluid at a concentration of between 2 and 3% by weight.
- [c14] A method of treating a subterranean hydrocarbons reservoir penetrated by a well, said well having a bottomhole static temperature ranging between about 25 ° C and about 150 ° C, comprising contacting the formation with a treating fluid comprising an aqueous solution, 15 to 28% by weight of hydrochloric acid, 1 volume percent of methanol, and 3 weight percent of erucylamidopropyl betaine.
- [c15] A method of treating a subterranean hydrocarbons comprising contacting the formation with a mutual solvent and then, contacting the formation with a treating fluid comprising an aqueous solution, acid, methanol, and erucylamidopropyl betaine.